

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023407**Date Inspected:** 06-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Sun Tian Liang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 009045

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment 13AW. The weld designations reviewed are as follows:

1. SEG3013AD-008, 009, 011, 030, 029, 028

OBG Trail Assembly

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint CA3016A-106, 110, 114, 118, 122 and 126 located on Corner Assembly RS Stiffener at panel point 124 to 124.5 of Segment 13CW. ZPMC Welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

SMAW welding of weld joint CA3015A-007, 011, 015, 019 and 023 located on Corner Assembly RS Stiffener at

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panel point 120.5 to 121 of Segment 13BW. ZPMC Welder is identified as 067588. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SA3126-016~029-005 and 007 located on bottom plate connected SA3127 at panel point 123 to 123.5 of OBG Segment 13CW. ZPMC Welder is identified as 045280. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint SA3127-001-001, 003, 005 and 007 located on bottom plate connected SA3127 at panel point 124 to 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 045280. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint SEG3015H-235, 239, 243 and 247 located on Vertical Plate Stiffener to Floor Beam at panel point 123 of OBG Segment 13CW. ZPMC Welder is identified as 045240. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint SEG3015K-208, 210, 212, 214, 216 and 218 located on Vertical Plate Stiffener to Floor Beam at panel point 122.5 of OBG Segment 13CW. ZPMC Welder is identified as 058245. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint CA3127-001~005-009 and 011 located on corner assembly RS stiffener at panel point 124 to 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint OBG13B-003 located on bottom plate to side plate of OBG Segment 13AW to OBG Segment 13BW. ZPMC Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Hu Mei Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231T-ESAB.

This QA inspector observed ZPMC personnel performed Magnetic particle Testing (MT) on Deck Panel Diaphragm to Floor Beam Flange Weld at Panel point 121 and 120.5 FL2 Side of OBG Segment 13BW. The weld number is identified as SEG3014D-227 and SEG3014-021.

Description of Incident: During random Quality Assurance Visual in-process inspection of welds located on segment 13CW, this Quality Assurance Inspector (QA) observed that ZPMC personnel performed flame cutting on floor beam to floor beam weld at Counter Weight Side. Prior to cutting ZPMC QC informed to inspection engineer. The floor Beam numbers are identified as FB3237A (X4518B) and FB3238A (X4520B). The panel points are identified as 124.5 and 124. This weld is a Fillet weld joining the Floor beam Web to Flange. The Floor Beam Flange weld is identified as Non SPCM. For further information, please see the attached pictures.

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Vibin
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Patel,Hiranch
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QA Reviewer
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